

WHAT IS CLAIMED IS:

1. An isolated polypeptide comprising at least one of:
 - (a) SEQ ID NO:2,
 - (b) at least 100 contiguous residues of SEQ ID NO:2,
 - (c) at least 60 contiguous residues of SEQ ID NO:2, residues 340-634, and
 - (d) at least 12 contiguous residues of SEQ ID NO:2, residues 481-634.
2. An isolated polypeptide according to claim 1, wherein said domain has an sema K1 activity selected from at least one of an immune cell-binding and/or binding inhibitory activity and an sema K1-specific immunogenicity and/or antigenicity.
3. An isolated or recombinant nucleic acid comprising a strand of at least one of:
 - (a) SEQ ID NO:1,
 - (b) at least 300 contiguous nucleotides of SEQ ID NO:1,
 - (c) at least 102 contiguous nucleotides of SEQ ID NO:1, nucleotides 1017-2498, and
 - (d) at least 36 contiguous nucleotides of SEQ ID NO:1, nucleotides 1441-2498.
4. A recombinant nucleic acid encoding a polypeptide according to claim 1.
5. A cell comprising a nucleic acid according to claim 4.
6. A method of making an isolated polypeptide according to claim 1, said method comprising steps: introducing a nucleic acid according to claim 4 into a host cell or cellular extract, incubating said host cell or extract under conditions whereby said nucleic acid is expressed as a transcript and said transcript is expressed as a translation product comprising said polypeptide, and isolating said translation product.
7. A method for modulating a cellular physiology, said method comprising the step of contacting the cell with an agent which modulates sema K1 activity, wherein the agent comprises a polypeptide according to claim 1.

8. A method for modulating a cellular physiology, said method comprising the step of contacting the cell with an agent which modulates sema K1 activity, wherein the agent comprises a nucleic acid according to claim 3.

5 9. A method for modulating a cellular physiology, said method comprising the step of contacting the cell with an agent which modulates sema K1 activity, wherein the agent comprises a nucleic acid according to claim 4.

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